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TAGS: [ENRG](#) [TRGY](#) [BEXP](#) [BTIO](#) [TH](#)  
SUBJECT: THAILAND AIMS FOR NUCLEAR POWER PLANT BY 2020

REF: A. STATE 127423  
[1](#)B. BANGKOK 2813

[1](#)1. (SBU) Summary. Thailand has expressed commitment to nuclear energy and hopes to build an operational nuclear power plant by 2020. Potential obstacles towards achieving this goal include political instability, the current financial crisis, and negative public opinion towards nuclear power plants. Thailand has created governmental bodies to oversee regulation and operation of nuclear power plants, although the roles of various agencies need to be more clearly defined. Thailand is also not yet a signatory to a number of internal safety, security, and liability conventions, most notably the Convention on Nuclear Safety and the Convention on Supplementary Compensation for Nuclear Damage. End Summary.

[1](#)2. (SBU) Per reftel A, post has gathered information on Thailand's civil nuclear energy industry and keyed responses to reftel's queries as follows:

[1](#)3. (SBU) Describe any plans for the development of nuclear power in your country. Also, describe any existing or planned nuclear power related facilities in your country, such as uranium mining, if any. Do you foresee an expansion of these facilities?

The Royal Thai Government (RTG) approved Thailand's Power Development Plan 2007-2021 (PDP 2007) in June 2007. The PDP 2007 stipulates that the RTG consider building a 2,000 megawatt nuclear power plant by 2020 and another 2,000 plant by 2021 (see reftel B). Currently, the RTG is conducting a feasibility study to identify sites, suppliers, and fuel selection; as well as examine funding and licensing schemes. The RTG will make a final decision on nuclear power plants around 2011. The RTG established the Nuclear Power Program Development Office (NPPDO) to coordinate and oversee the implementation of nuclear power plants. Thailand currently operates a small two megawatt nuclear research reactor, but this plant does not generate electricity.

[1](#)4. (SBU) If your country is considering the pursuit of nuclear power, describe the underlying motivations (e.g., current or anticipated power shortages, energy security, or other industrial uses, such as desalination).

The RTG identified energy security; concerns over global warming; maintenance of energy price and stability; and retention of natural gas in the Gulf of Thailand as the primary motivations for building nuclear power plants. Currently, natural gas from the Gulf of Thailand accounts for about 70% of Thailand's electricity, although gas supplies are being depleted. Thailand has also been affected by the volatility in oil prices.

15. (SBU) If there are plans to pursue nuclear power, describe anticipated government role in the financing of its civil nuclear sector. For example, does the government plan to provide subsidies, tax breaks, loan guarantees, or other financial incentives? Would some or all nuclear power plants be state-owned enterprises? Would you seek financing from international investment banks and organizations or consortium arrangements?

The RTG will address these concerns in their feasibility study, which should be completed in late 2009. The NPPDO has expressed interest in all of the financing schemes mentioned above.

16. (SBU) What are the names and titles of the key nuclear decision making government bodies and top officials?

The NNPDO, an agency under the Ministry of Energy, takes the lead on overseeing and implementing the introduction of nuclear power; and the Office of Atoms for Peace (OAP), under the Ministry of Science and Technology, acts as the nuclear regulatory body. However, based on conversations with NNPDO and OAP, there appears to be confusion over these two leading agencies roles in the nuclear energy industry (see reftel B).

In addition, the Thailand Institute of Nuclear Technology (TINT), a quasi-governmental organization, carries out nuclear research.

The key officials are:

Dr. Pornchai Rujiprapa, Permanent Secretary of Energy, Ministry of Energy; Dr. Kopr Kritayakirana, Chairman, Nuclear

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Power Infrastructure Preparation Committee; Mr. Sirichai Keinmeesuke, Secretary General, Office of Atoms for Peace; Mr. Viraphol Jirapraditkul, Director General, Energy Policy and Planning Office; and Mr. Kraisi Karnasuta, Governor, Electricity Generating Authority of Thailand (EGAT).

17. (SBU) Does your country have an existing nuclear regulatory authority? What are its inspection/enforcement powers? If so, how large is it (i.e., how many people does it employ)? If not, are there plans to establish such an authority?

OAP, which is part of the Ministry of Science and Technology, serves as the nuclear safety regulatory body. Currently, OAP employs 400 civil servants of whom 20 are engineers or scientists responsible for inspection. In past discussion with OAP, the agency has expressed great interest in getting training and support from U.S. experts in the areas of laws, regulations, licensing procedures, and creating international liability regimes.

18. (SBU) Does your country have a domestic nuclear liability law? If so, please summarize its major elements. In particular, is there a minimum level of required liability coverage required for operation? If your country is not party to an international liability regime, is there any consideration being given to joining one? If so, which international liability regime (Vienna Convention, Paris Convention, Convention on Supplementary Compensation for Nuclear Damage) is being considered?

Thailand has not implemented a domestic nuclear liability law, but is in the process of studying liability regimes. Thailand is also not a party to an international liability regime, in particular the Conventions on Nuclear Safety and Supplementary Compensation for Nuclear Damage (see ref B). When Embassy officials met with NNPDO and OAP, the agencies expressed interest in learning about U.S. regulatory laws as well as the legal implications of the various international conventions on liability.

19. (SBU) Is the manufacturing base in your country

(including high-tech components and heavy industry) involved in nuclear related products or services? Does it seem likely that any components or contracting services for new plants could be sourced locally, or would the majority of these need to be imported?

Thailand's manufacturing base does not appear to be involved in nuclear related products or services at this time. Based on conversations with NNPDO and AOP, it seems likely that many components and contracting services for new plants will need to be imported, although the feasibility study aims to identify the needs.

¶10. (SBU) How extensive is your country's nuclear-trained workforce? Does your country have significant engineering, technician, and construction base that could be readily converted into a nuclear workforce (e.g., engineers, high precision manufacturing, robust quality assurance programs, high quality construction)? Will the development of civil nuclear power require a significant foreign workforce? Are programs in place, or being developed, for training or domestic personnel (e.g., in skilled trades and nuclear regulation)?

Thailand lacks a nuclear-trained workforce in all aspects of the industry, from engineering to construction, largely due to the fact that Thailand has not had an active nuclear energy industry. Most experts in the field have retired. The feasibility study will also address workforce issues.

¶11. (SBU) Does your country have any current or anticipated nuclear related tenders? If so, please describe the tender/selection process for new contracts, its timing, and indicate any U.S. firms considering bidding.

There are no active tenders at this time. However, the RTG awarded a subsidiary of U.S. firm Burns and Roe the U.S. \$6 million contract for conducting the feasibility study.

¶12. (SBU) What nuclear sector opportunities do you foresee for U.S. industry (e.g., feasibility studies or other consulting services, plant construction management, reactor sales, fuel cycle service provision, plant operations, waste management, or logistics)?

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The U.S. Foreign Commercial Service anticipates opportunities for U.S. industry in all the above mentioned sectors.

¶13. (SBU) If applicable, what are the primary companies (domestic and foreign) involved in (or considering involvement in) your country's civil nuclear sector? Please include utilities, plant operators, fuel cycle service providers, technology vendors, and major construction or consulting firms.

The primary companies who may be involved in the civil nuclear sector in the future appear to be the companies who are now actively involved in the power and electricity industry. These include the state-owned Electricity Generating Authority of Thailand (EGAT); Black and Veatch; GE; and Burns and Roe. Japanese firms in the power and electricity industry also seem likely to compete for contracts, although it is too early to determine which Japanese companies are involved.

¶14. (SBU) Are there other nuclear supplier countries engaging your country? Please describe any available details on formal agreements including existing or potential (1) MOUs on nuclear cooperation; (2) legal frameworks for nuclear commerce; or (3) arrangements for technical or information exchanges.

South Korea and Thailand signed a MOU in 2004 to promote cooperation in nuclear energy. NNPDO also claims Japan,

France, Australia, and Korea have also provided technical assistance. RTG is still developing legal frameworks for nuclear commerce. NNPD and OAP have expressed interest in learning from U.S. regulatory and commerce experts. Thailand has also requested support from IAEA experts regarding nuclear regulatory and procedural matters.

¶15. (SBU) Are there any political considerations your country may take into account when choosing to cooperate with competing nuclear supplier states?

Thailand's lack of political stability, the global financial crisis, and anti-nuclear power plant sentiment in the Thai population may play a large role in determining whether goals of constructing an operational nuclear power plant by 2020 are realized.

JOHN